

STAFFORD COUNTY SCHOOL BOARD

Agenda Consideration

TOPIC: Mold Remediation

ITEM NO: 10E

PREPARED BY: Andre' A. Nougaret 
Assistant Superintendent
for Support Services

MEETING: December 9, 2003
ACTION DATE: N/A

Andrew F. Hicks, Director
Maintenance & Operations

Robin M. Ashby, Assistant Director
Maintenance & Operations

Stacy R. Gentry
Supervisor of Physical Plants

ACTION REQUESTED BY THE SUPERINTENDENT: That the School Board receive for information actions taken, and those recommended for future implementation, by the Maintenance and Operations Department to address mold remediation in our facilities.

KEY POINTS:

1. Record amounts of rainfall and humidity engulfed our locality this past spring and summer.
2. As the 2003-04 school year began, a significant mold problem was identified and remediated at Grafton Village Elementary School. During this same period of time several other schools reported minor mold problems. Remediation efforts ensued at each site.
3. During the last eight weeks, a thorough inspection was conducted at the following schools: Grafton Village Elementary (GVES), Falmouth Elementary (FES), Moncure Elementary (MES), Stafford Elementary (SES), Hartwood Elementary (HES), Ferry Farm Elementary (FFES) and Hampton Oaks (HOES). Except for HOES, the schools listed have the same kind of unit ventilators (uni-vents) in most of the classrooms. The following summary observations have been made:
 - "Uni-vents" were ineffective at moisture removal on the scale required during the excessively wet spring and summer.
 - Many rooms had dehumidifiers but not all were in use.
 - All of the aforementioned schools have fiberglass-insulated pipe and in some places small patches of mold were observed.
 - Each facility has exhaust fans but some are more efficient than others.
 - "Uni-vents" have air discharge grills upon which condensation can form, thereby collecting dust. Dust accumulation can be mistaken for mold.
 - Drainage problems result in the pooling of water directly under the intakes of first floor "uni-vents."

(Continued)

4. Effective humidity control can eliminate, to a large extent, the possibility of surface mold (airborne mold cannot be completely eliminated). Normal mechanical failure of valves and pipe seals will occasionally cause leaks, saturating pipe insulation. Under controlled humidity situations, this is not a significant problem.

5. Recommendations:

- Effect programming changes to the uni-vent controls to better control humidity (a slower fan speed, closed outside air damper, and fully open chilled water valve, humidity sensors installed to monitor humidity level and regulate system) will cause more moisture to be removed from the air. *
- Replace pipe insulation. This new insulation will react more favorably to high humidity. *
- Increase the volume of exhaust air removed which, in turn, increases the volume of air coming into the building. *
- Direct custodians to follow prescribed cleaning practices to include vacuuming of "uni-vent" grills twice weekly and the timely inspection/cleaning of existing dehumidifiers.
- Effect routine maintenance program that will include inspection of "uni-vent" drip pans and the timely replacement of filters.
- Direct maintenance staff to replace damaged ceiling tiles and repair pipe leaks as identified.
- Drainage of water derived from condensation running from the outlet pipes must be channeled in a more effective manner to avoid pooling next to unit ventilator louver. *

*Will be piloted at GVES during spring and summer 2004. Special note: HVAC controls upgrade was previously approved for FFES and will be funded with FY2003 carryover funds.

At the end of the 2004 summer, the Maintenance and Operations Department will review and assess the effectiveness of all recommendations and specifically those piloted at GVES. If recommended changes yield positive results, similar initiatives will be implemented in other schools on a schedule to be determined.

SCHOOL BOARD GOAL: GOAL 7 ~ Provide school environments where teachers are safe to teach and students are safe to learn.

FUNDING SOURCE:

FY2004 Operations and Maintenance Budget (040 6420 618 6007)

AUTHORIZATION REFERENCE: